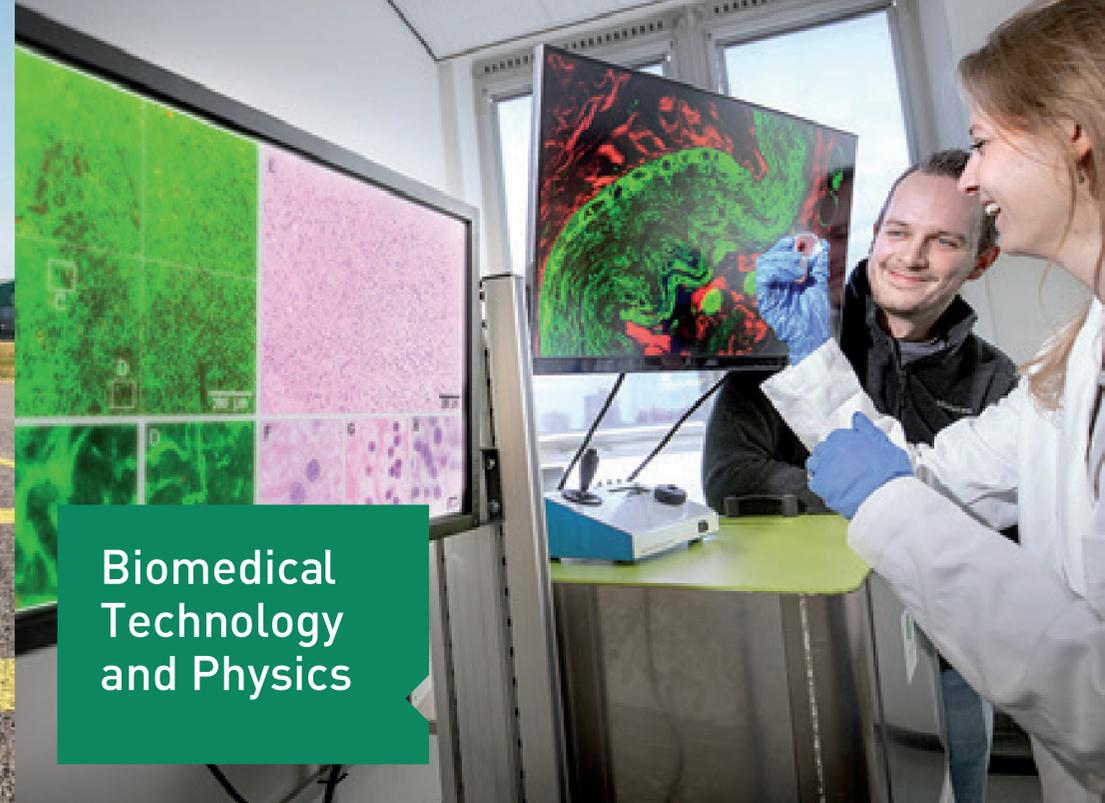


# Vrije Universiteit Amsterdam in society in 2019



World record



Biomedical  
Technology  
and Physics



Is the world  
changing  
or are you  
changing  
the world?



Déja VU  
Summer Festival

# Key data for 2019

## Teaching

[Read chapter →](#)

**26,593** Students

**98** Master's degree programmes

**46** Bachelor's degree programmes

**7** Bachelor's degree programmes with a top rating in the National Student Survey

**6** Master's degree programmes with a top rating in the National Student Survey

## Research

**404** Doctorates

**14.1%** Publications in the top 10% of the Leiden Ranking

**45** Members of the Royal Netherlands Academy of Arts and Sciences

**11** European Research Council grants

**19** Dutch Research Council grants

**11** Marie Skłodowska-Curie ITN grants

**52%** Open Access (unrestricted public access to research)

## Staff

**3,674\*** Employees (FTEs)  
 601\* Doctoral students  
 25%\* Female professors  
 49% Male  
 51% Female

\* not including VU University Medical Centre

## Finances

**EUR 561,428\*\*** Income (X 1,000)

\*\* including the first flow of funding for medical students, not including the work placement service for medical students

## Impact and knowledge transfer

[Read chapter →](#)

**9** Patent applications submitted (incl. VU University Medical Centre)

**3** Spin-offs completed (incl. VU University Medical Centre)

**34** New licence agreements (incl. VU University Medical Centre)

**1,405** Students taking entrepreneurship modules

## Rankings

[Read more →](#)

**39** Times Higher Education Impact Rankings (of 768)

**85** Leiden Ranking (of 963)

**103** Shanghai University Ranking (of 1800)

## Sustainability

**41,548** tonnes Carbon footprint  
**432,359** GJ Power consumed  
**121,983** m<sup>3</sup> Gas consumed  
**119,402** m<sup>3</sup> Water consumed  
**1,277** tonnes Waste produced

# Meet VU Amsterdam

The Vrije Universiteit, which literally translates as 'Free University', was founded as a private university in 1880 by five professors, among whom was Abraham Kuyper, and five students. In those days, the word 'free' in the name stood for free from church, state, and commercial interests. Entirely in the vein of the independence that the founders pursued, VU Amsterdam is still co-funded through numerous small contributions from across the Netherlands.

[Read more about our history on the Geheugen van de VU website](#) →

What started as a modest initiative on Amsterdam's Keizersgracht canal, made up of the three faculties of Theology, Arts and Law, grew into a medium-sized university in the 1960s and ultimately into what we are today: a dynamic educational institution with 9 faculties, 4,600 staff, and over 26,000 students. The ideals that our founders had in mind in their day, such as diversity, solidarity (inclusiveness) and quality were never lost. To this day, it is still true that at VU Amsterdam, you not only become something, you also become someone. Someone with academic credentials and an eye for society.

## Mission

Through science-driven and value-driven teaching, research and [knowledge transfer](#), we take responsibility for people and planet. We equip students and professionals with the right knowledge and 'A Broader Mind.' Our research pushes boundaries within and between disciplines. Our students and staff are connected to each other and society as free thinkers with a strong sense of diversity, purpose and solidarity. That is VU Amsterdam's mission (January 2020).

26,593  
+8.2%



Students

9



Faculties

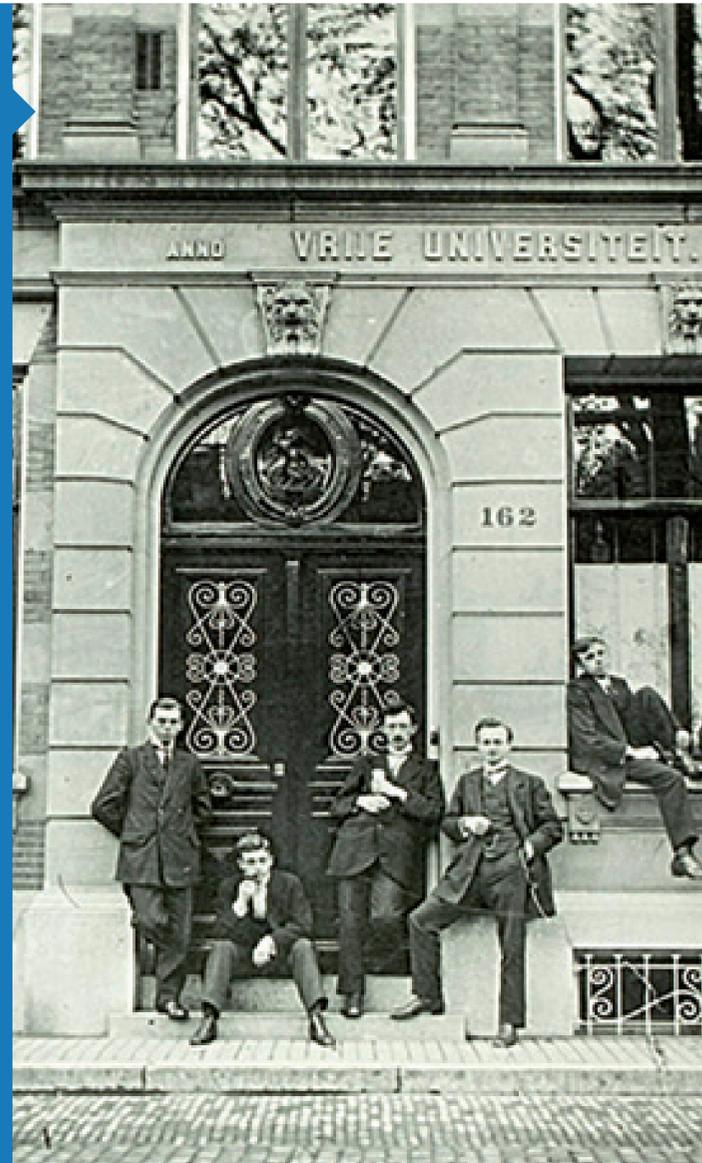
3,674  
(FTEs)



Staff

## Our faculties

1. Sciences
2. Behavioural and Movement Sciences
3. Humanities
4. Medicine
5. Religion and Theology
6. Law
7. School of Business and Economics
8. Social Sciences
9. Dentistry/Amsterdam Academic Centre for Dentistry (ACTA)



*Our core values of responsible, open and personal are rooted in our identity and our history.*

*Everyone who is part of the VU community endorses these values.*



W. H. de Savornin Lohman was the first student to earn a doctorate from VU Amsterdam.

Through our 'The Mixed Classroom' teaching concept, we make the most of the diversity of the student groups in our classrooms and provide a foundation for personal development and dealing with diversity.

# Four profile subjects

These profile subjects shape the contents of our mission. How science relates to society and vice versa is subject to change. Contemporary societal issues are increasingly complex and call for a multidisciplinary approach. Future scientists and professionals need to be able to work across the boundaries of their domains. By organising our teaching, research and knowledge transfer along the lines of four profile subjects, we at VU Amsterdam both encourage multidisciplinary collaboration and illustrate our university's profile.

## Human Health & Life Sciences

studies the health and well-being of people, including the organisation and funding of healthcare.



## Governance for Society

studies the structuring and governance of organisations and societies.



## Science for Sustainability

studies the conditions for a future-proof balance between people, planet and the economy.

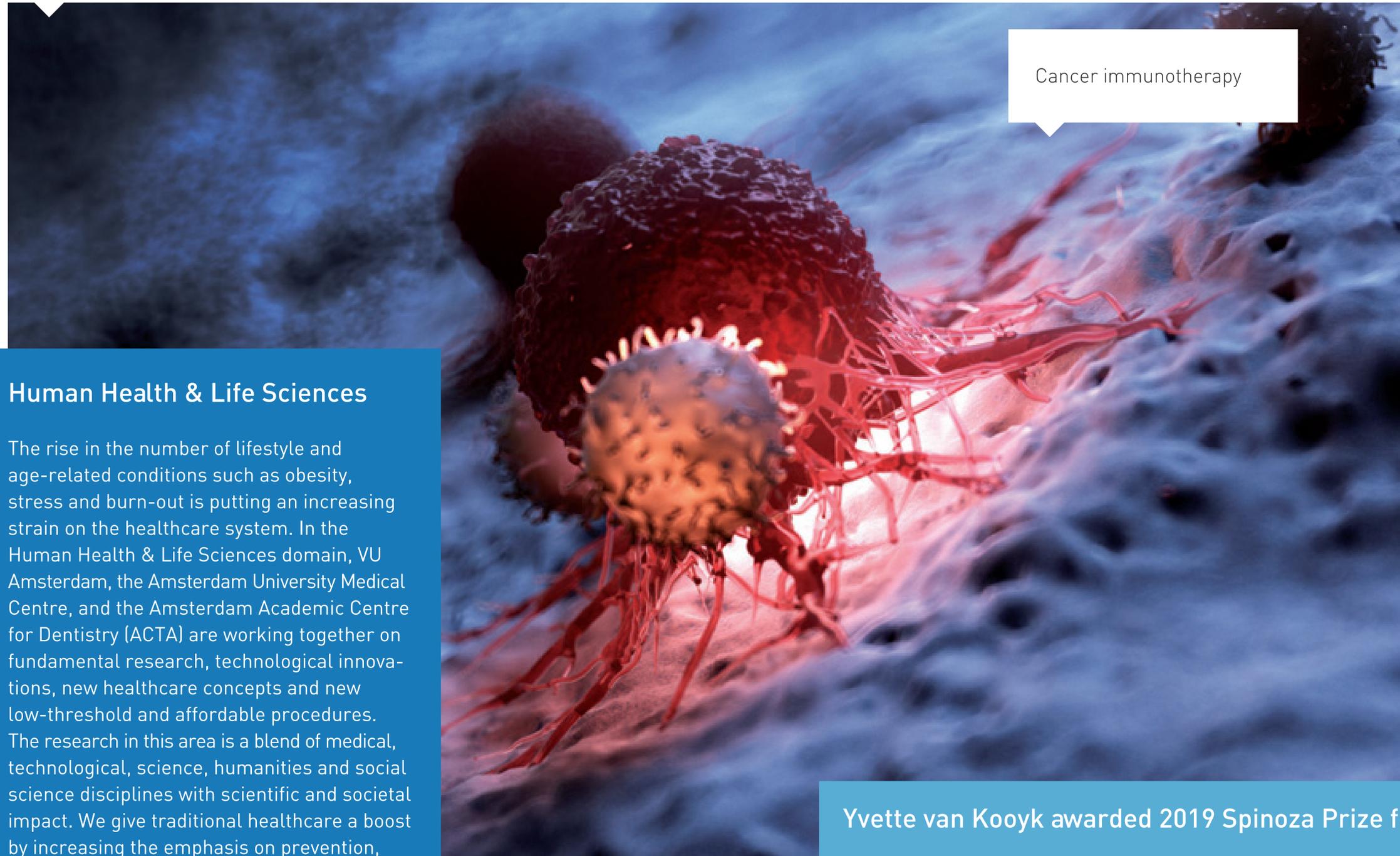


## Connected World

studies the impact of digitalisation and globalisation on human, cultural, economic and political relations.



## Four profile subjects



Cancer immunotherapy

### Human Health & Life Sciences

The rise in the number of lifestyle and age-related conditions such as obesity, stress and burn-out is putting an increasing strain on the healthcare system. In the Human Health & Life Sciences domain, VU Amsterdam, the Amsterdam University Medical Centre, and the Amsterdam Academic Centre for Dentistry (ACTA) are working together on fundamental research, technological innovations, new healthcare concepts and new low-threshold and affordable procedures. The research in this area is a blend of medical, technological, science, humanities and social science disciplines with scientific and societal impact. We give traditional healthcare a boost by increasing the emphasis on prevention, disease management, patient participation and adequate and affordable support in cases of long-term healthcare. We also want to better equip people to take on the physical, emotional and social challenges in life.

## Interview

Yvette unravelled how the immune system gets disrupted by the onset of cancer, autoimmune diseases and infectious diseases such as HIV/AIDS. She discovered that certain sugar molecules either stimulate or inhibit communication between the cells of the immune system. The medication she develops is intended to help the immune system fight off cancer and other diseases.

Yvette plans to use the Spinoza Prize not only to fund more research but also to raise the profile of immunology as a field of study: "Cancer or rheumatism research instantly resonates with people. Immunology is much harder to bring into the limelight. I would like to build a strong network of glyco-immunologists, so that we can meet up more often and inspire each other.

Also, I want to more closely link our research to clinical practice. And I would like to get artists involved to raise awareness among the general public of what immunology is all about, what we as scientists are working on. There are so many prospects!

### Yvette van Kooyk awarded 2019 Spinoza Prize for groundbreaking work in immunology

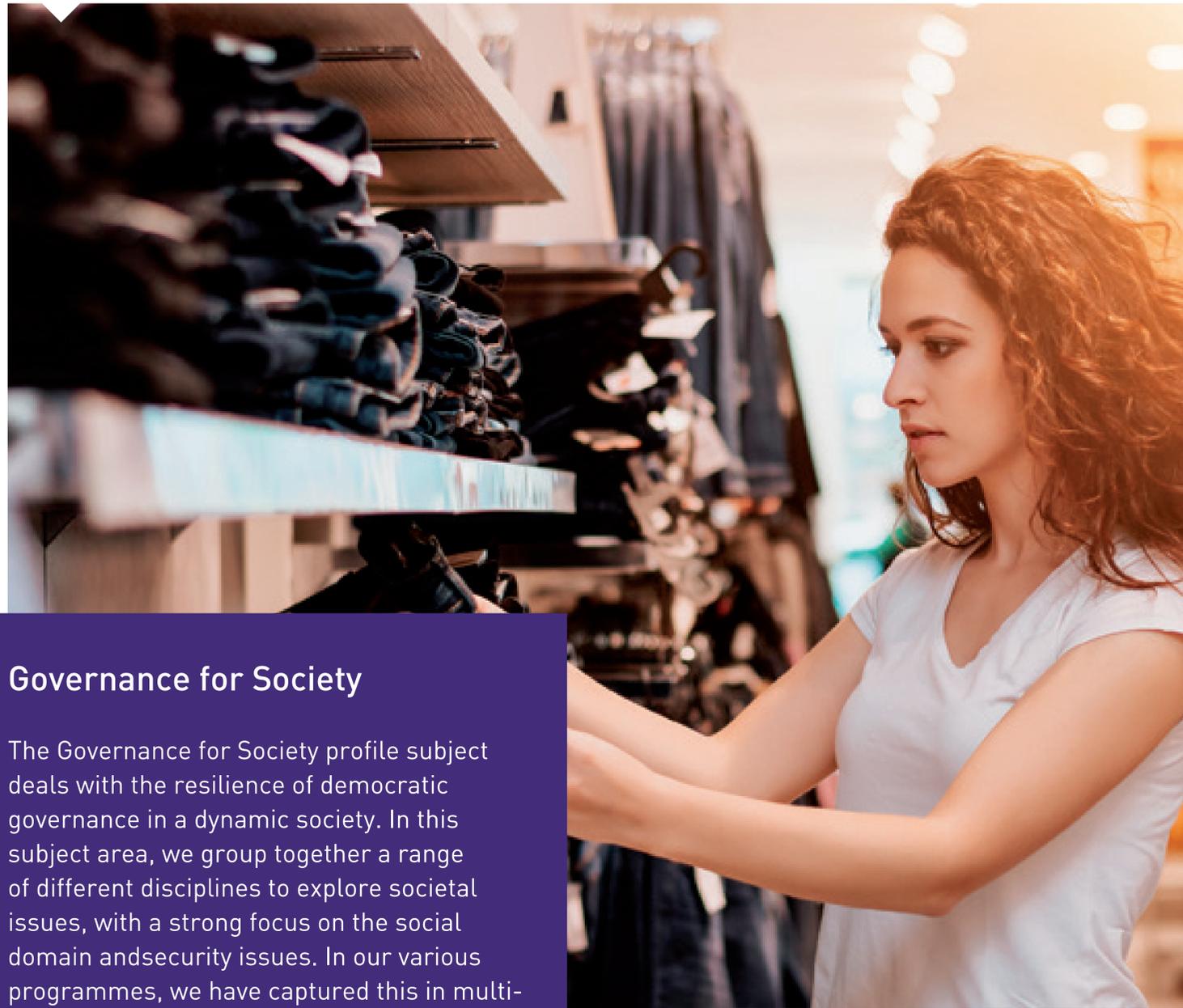
*'Let's build a strong network of glyco-immunologists'*



On 2 October, **Yvette van Kooyk**, Professor of Molecular Cell Biology and Immunology at Amsterdam University Medical Centre, was honoured with the Spinoza Prize. The Spinoza Prize is the Netherlands' highest accolade for outstanding and groundbreaking high-profile research.

[Watch the interview →](#)

## Four profile subjects



### Governance for Society

The Governance for Society profile subject deals with the resilience of democratic governance in a dynamic society. In this subject area, we group together a range of different disciplines to explore societal issues, with a strong focus on the social domain and security issues. In our various programmes, we have captured this in multi-disciplinary majors, minors, honours modules and programmes such as the Philosophy, Politics and Economics (PPE) Bachelor's degree programme, the Law in Society Bachelor's degree programme, the Law and Politics of International Security Master's degree programme and the Peace and Conflict Studies minor.

## VU Amsterdam philosophers win Socrates Cup with critical book about the free-market economy

*'The book is all about the question of what we consider to be a good economy'*



**Govert Buijs** is endowed Professor of Political and Social Philosophy at VU Amsterdam's Faculty of Humanities. He also teaches 'philosophy of the economy' at the School of Business and Economics. His current research focus is on morality and markets.

## Interview

In April, 'Het goede leven en de vrije markt' (The good life and the free market) won the 2019 Socrates Cup. This prize is awarded to the most topical, original and stimulating Dutch-language philosophy book. 'Het goede leven en de vrije markt' was written by VU Amsterdam philosophers Ad Verbrugge, Govert Buijs and Jelle van Baardewijk.

"The book is all about the question of what we consider to be a good economy," says Govert Buijs. "We always used to think that a good economy was a growing economy, but what if economic growth goes at the expense of, for example, sustainability, the environment or quality of life? In the book, we describe five dimensions for a good life – nature, relationships, the organisation of society, physical well-being and meaningfulness. The economy should be in the service of these dimensions and not the other way round."

One example presented in the book is that of buying a pair of jeans. Govert: "Buying a pair of jeans is easy, and the consumer will simply assume everything's okay. But is it? Our economy has been set up in such a way that there is great distance between producers and consumers,

causing the latter to be insufficiently attentive to the impact of production on people and the planet. You could change that by shedding more light on the production chain - not only societal organisations can do that, but companies are also increasingly cottoning on to the importance of production transparency. Needless to say, the authorities and consumers also need to keep an eye on things themselves. In a nutshell, the good life is a collective good that we must shape as a society."

"What's important to us is that the book contributes to the public debate about this," says Govert. "Based on the five dimensions, people can contemplate and discuss the quality of our economy and ways to better organise it together – not only for the short term, but also for the long term."

Curious about the book?

[Click here for details](#)  
[on where to get it →](#)



## Four profile subjects



### Science for Sustainability

The idea behind this profile subject is to create conditions for a balance between people, planet and the economy without depleting the Earth's resources. One of the ways we do this is by connecting fundamental scientific knowledge to knowledge on how to implement sustainable changes in society. Science for Sustainability is a multidisciplinary subject area that involves multiple faculties and VU Amsterdam operational units.

*'ASI will enable us to do more in tackling sustainability issues and to generate greater impact.'*

## Interview

The [Amsterdam Sustainability Institute](#) (ASI) was opened in May. Its primary goal is to take collaborative sustainability research across VU Amsterdam to a higher level by putting the United Nations' [Sustainable Development Goals](#) (SDGs) at the centre of our sustainability efforts.

"The various faculties of VU Amsterdam already conduct extensive research into sustainability, and there is also widespread collaboration with other universities, both in the Netherlands and abroad, but our mission is to optimise inter-faculty and interdisciplinary research collaboration across VU Amsterdam," says ASI director Professor Philipp Pattberg. "It will enable us to do more in tackling sustainability issues and to generate greater impact."

ASI works based on the SDGs that focus on issues such as climate change, energy transition, water and food. Philipp: "What sets us apart from other research institutes is that our research revolves around making a difference for society and diversity, which also produces better results."

After its launch, ASI will start up a number of ['seed money'](#) projects supporting small-scale innovation projects in the area of sustainability. Also, in a unique partnership with the Faculty of Theology, the institute organised the ['Water in Times of Climate Change'](#) symposium.

"Going forward, our ambition is to bring the VU community even closer together and make it even more part of ASI," says Philipp. "Five years from now, we want to be a strong and high-profile community in terms of sustainability. We also want to work even more closely together with external partners across the Netherlands and abroad, and raise our profile in society. In fact, we already have a major conference lined up for February 2021, which will focus on how to accelerate the transition to a sustainable future."



**THE GLOBAL GOALS**  
For Sustainable Development

## VU Amsterdam launches sustainability collaboration platform



**Philipp Pattberg** is the director of the Amsterdam Sustainability Institute. He is also Professor of Transnational Environmental Governance & Policy and Head of the Department of Environmental Policy Analysis at the Institute for Environmental Studies (IVM) at VU Amsterdam.

## Four profile subjects



### Connected World

Our economy, our culture, our relationships and our local area are increasingly driven by global networks. People across the world have been brought closer together by globalisation and digitalisation: we are a connected world. Teaching and research within the Connected World profile subject are focused on the many societal issues ensuing from increasing globalisation and digitalisation. The subject deals with questions such as: What role does technology play in our day-to-day lives? What does it mean to share information with complete strangers? Do we live in echo chambers when we have a certain opinion? Do social media give us a sense of security at mass gatherings? Do computers help us understand and document the past?

*‘Roughly half of all homeless people have a smartphone’*



### Information Studies undergrads develop app for the homeless

As part of their final-year project on the digital divide in society, **Marc Hegeman** and **Bandro Edoga** developed an app for the homeless. While homeless people often do have a smartphone, they fail to use it to its full potential. It is sometimes also hard for them to find information that is relevant to them.

## Interview

The Information Studies undergrads took a deep dive into the issues that homeless people face by helping out at the Sant Egidio charity in Amsterdam. Marc: “The people who volunteer there told us that they often get the same questions from users: do you know somewhere I can sleep tonight? Where can I get free food when this place is closed?”

Based on these talks, Bandro and Marc developed an app that gives the homeless easy access to information that is relevant to them: places to spend the night, places where they can take a shower, free internet hotspots, places where they can get something to eat, food banks and medical facilities where homeless people are welcome. Given that aid organisations are often very busy, Bandro came up with a system that these organisations do not have to actively update.

Amsterdam City Council has already shown an interest in the app, and Marc and Bandro also have plans to export the app to other cities: “It doesn’t make a big difference if you want to launch this app in Utrecht or Moscow. I’ve programmed it in a way that uses Google Translate to make it equally easy to find relevant information in other cities,” Bandro concludes.

# Teaching

VU Amsterdam’s educational vision ties in with our three core values: personal, open and responsible. At VU Amsterdam, we educate students to become responsible, critical and committed academics. There is scope and attention for what moves lecturers and students, as well as for fundamental and applied sciences.

To us, every student is unique and valuable. At the university, they are given the opportunity to develop themselves to the fullest. Accessibility and equal opportunities in education are key values for VU Amsterdam. We are committed to the learning success of all students.

Measures we have taken to improve accessibility, student progression and equal opportunities for all students include the following:

- The Pre-University College for first-generation students to help them get off to a good start

- Language courses for students to enable them to fully take part in classes
- The Mixed Classroom concept
- Various switching options for students in higher professional education who want to transfer to a university Master’s degree programme
- VU Analytics lets us analyse factors that determine learning success
- At VU Amsterdam, we are committed to better physical and digital accessibility for students with a disability.

## A Broader Mind

In 2019, students and lecturers teamed up to develop a pilot version of the A Broader Mind course. This programme teaches students to approach a societal issue from the perspective of different scientific disciplines. The subjects are based on the SDGs. In 2019, the A Broader

Mind course was included in as many as five VU Amsterdam Bachelor’s degree programmes. One key part of A Broader Mind is Community Service Learning (CSL), which has students use their academic skills to solve topical, societal issues by working in close collaboration and interacting with a social partner.

## Student counselling and student well-being

We are committed to doing everything within our power to help our students successfully complete their studies. Our student counselling is focused on advising, supporting, motivating and inspiring students to develop their knowledge, skills, insights and the application thereof at the top of their ability. Student well-being is under pressure and has become a focus point on a national level, and that means also at VU Amsterdam. We have career counsellors who offer direction and support in the context



First place in National Student Survey

*‘I’m extremely proud of VU students’ higher rating for the work of our lecturers and staff’*

Vinod Subramaniam, Rector Magnificus



## VU Amsterdam moves into joint first place in National Student Survey

In 2019, VU Amsterdam moved up from third place in 2018 to a joint first place in the National Student Survey’s comprehensive universities category! Student satisfaction levels were up on almost all fronts. On average, VU students gave their courses a rating of 4.07 (out of 5) and the overall atmosphere at the university a rating of 4.11. Students’ rating of our student counselling services was also up sharply, especially the increased support and counselling at programme level.

**Nationale Studenten Enquête 2019**

Het landelijke tevredenheidsonderzoek onder studenten



of the degree programme and each student's personal situation. We have student counsellors who help students navigate the university's procedures and national laws and regulations. And we work with student psychologists who offer specific student support for students' well-being and mental health.

### Language policy

VU Amsterdam pursues a unifying language policy that is geared towards inclusiveness. As bilingualism is assumed, courses are taught either in Dutch or in English, depending on the requirements and circumstances of the course. Some courses are taught in both languages. In 2019, we introduced the English language test for first-year undergraduate students. Students with a low score on this test were given the opportunity to take a short remedial English course.

Also in 2019, communication skills training modules were developed for various programmes, as well as a targeted range of Dutch language skills modules for students who speak Dutch as a second language and a Dutch course for international staff members on the staff council. Aside from all of this, 500 international students received a grant for a Basic Dutch on Campus course. A dedicated website has been set up for easy access to the full range of language services at VU Amsterdam.

### VU Mixed Classroom

The VU Mixed Classroom Educational Model is a teaching model that harnesses diversity to enrich the learning experience for all participating students. Students learn to have an open mind to differences, jointly create an inclusive environment and adopt different angles. Harnessing differences does not mean abandoning different perspectives or merging them into one single perspective.

It is precisely about the differences and possible strains between the perspectives. And about stimulating critical thought, developing analytical skills, and coming up with creative solutions.

### Talent

In 2019, students looking for an additional challenge in their studies had the opportunity to take their pick from a broad range of interdisciplinary modules at both VU Amsterdam and the University of Amsterdam (UvA) as part of the Honours programme. In 2019, 10% of students entered the Honours programme. The Honours programme is intended for students who by the end of their first undergraduate year have completed all modules, have an average mark of 7.5 out of 10, and are motivated to take extra modules in the second and third year of their Bachelor's degree programme.

### Education innovation

This year, the VU [Network for Teaching & Learning](#) was set up to promote:

- a thriving, inspiring teaching community of lecturers, students and support staff
- the improvement of the quality of education
- small-scale didactics projects and experiments.

The opening of the Teaching Workshop marked the first milestone. The VU Amsterdam Teaching Workshop has put together an extensive range of teaching tips for effective teaching and course and curriculum design.

### Institution Quality Assurance Test

In 2019, the Institution Quality Assurance Test was prepared, which involved writing a self-evaluation report (SER) that describes the set-up of VU Amsterdam's quality assurance system. Besides the SER, the educational vision and the 2019 education agenda were issued.

2



Second-placed university in the 2020 edition of the Dutch university guide (*Keuzegids Universiteiten*)

*'A clear teaching vision and the hard work put in by everyone here have made VU Amsterdam the Netherlands' second-placed traditional university in the new edition of the Dutch university guide'*

Vinod Subramaniam, Rector Magnificus



## University Guide ranks VU as the Netherlands' second university

VU Amsterdam is the only university with an above-average score on campus life & environment. Besides the top-rated Biology programme, five other Bachelor's degree programmes also get the 'Top-Rated Programme' quality label in the latest edition of the guide.



# Research

VU Amsterdam is a comprehensive university that is among the world's best. Our research spans the full scientific spectrum and includes both fundamental research and applied research. Our rich academic environment offers fertile soil for groundbreaking interdisciplinary research and numerous applications of research in society.

High-quality teaching and research excellence have earned the university widespread acclaim, enabling VU Amsterdam to attract [prominent researchers](#) from the Netherlands and abroad.

Research at VU Amsterdam combines in-depth knowledge of specific fields with a broad multidisciplinary perspective and skills.

VU Amsterdam's researchers are always keen to look across the boundaries of their fields and put their knowledge and skills at the service of creating a better world, both today and in the future.

## Research facilities

Groundbreaking research hinges on having high-quality research infrastructure, i.e. a cohesive whole of different research tools (such as equipment, experimental set-ups, software, etc.) around a specific research objective. As part of an ongoing investment drive, VU Amsterdam invests in research infrastructure such as the Integrated Carbon Observing System (ICOS-NL), which continuously monitors the exchange of greenhouse gases between soil, sea and atmosphere.

Other examples are the Netherlands Twin Register (NTR) and the Longitudinal Aging Study Amsterdam (LASA). On 23 September 2019, Amsterdam University Medical Centre's Imaging Centre (at VU University Medical Centre) opened its doors to the first patients. This centre is unique in the Netherlands and all of Europe because it uses the most innovative medical imaging technologies simultaneously for healthcare and scientific research, including the latest diagnostic technologies. The centre's unique lab will be used for both medical and pharmaceutical research. Thanks to the Imaging Centre, patients with cancer, immune system disorders, neurological or cardiovascular diseases can have all their medical imaging done at one single location.

The most important grants received in 2019 at a glance



### Rapid developments in scientific research

The world of science is changing rapidly and drastically on the back of developments such as big data, digitalisation, growing diversity of collaboration partners, open science and huge progress in information technology. This comes with both new opportunities and new threats, requiring a sweeping transformation of research infrastructure and research support. This is where the VU Research Data Support programme comes in, shaping the transformation in partnership with faculties and researchers. We want researchers to be able to focus primarily on their research and seize new opportunities to the fullest.

### Reputation and rankings

The world's leading university rankings all rank VU Amsterdam among the world's best.

The most high-profile international rankings are the following:

- [The Leiden Ranking](#);
- [The Times Higher Education World University Rankings](#);
- [The Shanghai University Ranking \(a.k.a.: Academic Ranking of World Universities\)](#).

In 2019, the Leiden Ranking ranked VU Amsterdam 85th in the world, 30th in Europe and 5th in the Netherlands.

The 2020 University Impact Ranking as part of The Times Higher Education World University

Rankings has us in 39th place worldwide, making us the highest-ranked Dutch university.

We have held on to our strong ranking in the 2019 edition of the Academic Ranking of World Universities (ARWU), which ranks us among the top 150 of the world's excellent research universities, putting us in 103rd place in a ranking of over 1,200 universities.

For an at-a-glance overview of VU Amsterdam's performance in the various international rankings, [click here!](#) →

### A doctorate at VU Amsterdam

Graduate Schools, VU Research Institutes, national research schools and internal providers such as VU Amsterdam's HRM department and

University Library all offer training and support for doctoral students in the areas of research methodology, research and professional skills, as well as scientific integrity. The name Graduate Schools covers all PhD-coordinating units.

On 1 July 2019, the doctorate regulations were amended. The new regulations are formulated in a gender-neutral way and have been brought into the modern age. There are also changes with respect to a doctorate in the arts, the exclusion of co-authors from thesis committees, the thesis assessment procedure, and what doctoral students and supervisors can do if problems arise during the doctorate process.



404



doctoral students

210



female

194



male

25



with honours

### Postgraduate programmes

VU Amsterdam offers a wide range of postgraduate programmes for professionals and other interested persons at various institutes.

- VU Law Academy (VULaw)
- Executive Education at the School of Business and Economics
- VU Language Centre
- VU Academy for Social Sciences (VASS)
- VU-NT2 (Dutch as a second language)
- LEARN! Academy
- VU Teachers Academy
- University Centre for Behaviour and Movement (UCBM)
- HOVOIVU from age fifty
- Zijlstra Center



*'Everyone has the right (...) to share in scientific advancement and its benefits'*

[Read the Universal Declaration of Human Rights](#) →

# Impact and knowledge transfer

Knowledge transfer is the exploitation of knowledge. It basically boils down to preparing scientific knowledge and making it available for usage for economic benefit or the public good, so that everyone can benefit from it. This includes sharing knowledge with a wide audience through television broadcasts, by partnering with companies, by developing new products or by founding start-ups and spin-offs.

## The IXA joint knowledge transfer centre

IXA is the joint knowledge transfer centre of VU Amsterdam, the University of Amsterdam,

Amsterdam University of Applied Sciences, and Amsterdam University Medical Centre. IXA provides researchers with broad support that ranges from help finding new collaboration partners and funding to counselling when starting a business, such as in making market analyses and writing a business plan. Every year, IXA runs the IXAnext - Talent for Innovation Knowledge Transfer Programme to harness and spread knowledge in the region. It is a joint programme of various research institutions. This programme also awards the Physics2Market Grant to promote validation

of physics research for collaboration with an industrial partner. IXA also manages funds for VU Amsterdam to help institutes, centres and researchers get started with knowledge transfer. The Academic Proof of Concept Fund Amsterdam (APCA) gives employees and external parties attached to the IXA knowledge institutions the possibility to test whether an idea can be made ready for market.

The Proof of Concept Fund (POC) offers budding entrepreneurs the opportunity to conduct a technical feasibility study. IXA also issues



*Researchers of VU Amsterdam and the University of Twente developed ZeroPhobia, a treatment for fear of heights that uses a smartphone app and a simple VR headset.*



*Two VU Amsterdam Physics professors, Erwin Peterman and Gijs Wuite, won the 2019 Impact Award at the Amsterdam Science & Innovation Awards. The award came in recognition of their work in developing high-grade measuring instruments.*

*In 2019, a new Entrepreneurship for artificial intelligence and IT elective module was developed.*

pre-seed loans to help start-ups get started and scale up.

### Amsterdam Venture Studios

Amsterdam Venture Studios' incubator on the campus of VU Amsterdam is home to 5 new spin-offs. Amsterdam Venture Studios is a collaboration between the various Amsterdam-based knowledge institutions with incubators on four university campuses: Amsterdam Science Park (University of Amsterdam), Amsterdam Health & Technology Centre (Amsterdam University Medical Centre), the Innercity Campus (Humanities Lab),

Roeterseiland (Law Hub) and Amstel Campus (Amsterdam University of Applied Sciences).

### Demonstrator Lab

In 2019, the Demonstrator Lab admitted 15 new projects, taking the total to 45. Four projects have meanwhile resulted in new businesses/start-ups. The total number of start-ups coming out of the Demonstrator Lab currently stands at 8. In 2019, the Findest and Scitodate start-ups both made the final of the Academic Start-up Competition for the most groundbreaking research innovations

in the Netherlands. Findest finished in the top 10 and went on to pitch their company in Silicon Valley.

GAMEC, the prestigious Italian art museum, bought ArtScience works from the new Hybrid Forms Lab, which is part of the Demonstrator Lab.

### Grants and knowledge transfer subsidies

In 2019, various VU researchers received a grant or knowledge transfer subsidy.

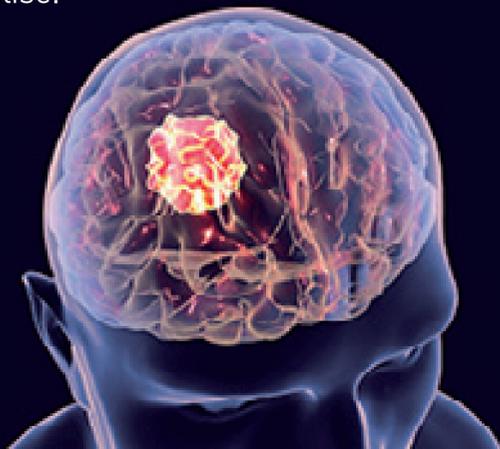
- Start-up Strike-f (x), a punching bag that gives real-time feedback on impact force and the location and direction of punches,

received a Phase 2 Take-off grant from the Dutch Research Council.

- Researchers Imran Avci and Davide Iannuzzi were awarded a Demonstrator Grant by the Dutch Research Council for PAS-WRAP technology testing for the detection of methane leaks in oil and gas extraction.
- The Fitsurance start-up was granted an inter-regional innovation stimulus subsidy for SMEs, known as the MIT grant, to run a feasibility study.

## Real-time pathology for instant confirmation of whether tissue is clean

VU start-up Tritos Diagnostics develops groundbreaking microscopic technology that provides real-time confirmation during surgical procedures of whether the margins of a removed tumour are free of cancer cells. This new technology makes surgery more effective, as it enables the surgeon to cut out more tumorous tissue while leaving healthy tissue intact. It is a huge improvement compared to current surgical practices, where surgeons have to wait for the results of a histopathological analysis of removed tissue, which can take up to 16 hours to materialise.



## New HQ for VU start-up LUMICKS

In September, Amsterdam-based tech firm LUMICKS opened its new HQ in a ceremony led by Ingrid van Engelshoven, the Dutch Minister of Education, Culture, and Science.

*'LUMICKS' revenue keeps doubling year on year, and so does our impact. We currently employ 90 highly educated people from 28 different countries. They work together to develop high-tech instruments that are used by universities worldwide.*

Olivier Heyning, LUMICKS CEO and co-founder



## VU start-up Findest makes top ten of most groundbreaking innovations in science

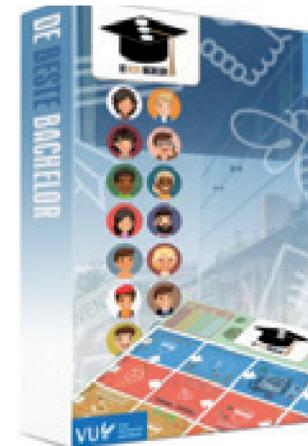
Findest, one of the many start-ups to come out of VU Amsterdam, was among the ten winners of the Academic Start-up Competition. Founded in 2017 by two former VU Amsterdam Science, Business & Innovation students, Findest provides a technology scouting service that combines human and artificial intelligence to match technologies to R&D challenges. The company run by founders Roel Boekel and Vincent Franken has meanwhile grown into a team of 14 and has over 50 customers.

# VU Amsterdam in society



## Water symposium

In November, VU Amsterdam organised the Water in Times of Climate Change symposium. At this symposium, Patriarch Bartholomew of the Eastern Orthodox Church argued that collaboration with nature should be the starting point – instead of the Netherlands’ traditional fight to keep the water out – with greater focus on behaviour and sense of community rather than merely looking for technological solutions.



## 'The Best Bachelor' board game

In June, the VU Analytics team presented a board game called 'The Best Bachelor'. It is a game that lets education professionals verify through data analysis and discussions whether certain teaching measures have the desired effect in helping as many students as possible graduate.



**OPEN ACCESS**

The rectors of the Netherlands’ universities now only publish their articles in Open Access. This initiative comes as part of the 'You share, we take care' pilot. VU Amsterdam Rector Magnificus Vinod Subramaniam: "The results of publicly funded research must be available to all."



## Sustainable VU

Sustainability is a key focus at VU Amsterdam and is pursued across the board in our accommodation, operations, teaching and research. Science for Sustainability is one of the profile subjects in our Strategy for 2020-2025. The idea behind this profile subject is to create conditions for a balance between people, planet and the economy without depleting the Earth’s resources. The resulting knowledge allows us to empower our students to do their bit in creating a better world and to prepare them for a sustainable career.

## Thames Challenge Cup

In July, the men’s eight of VU Amsterdam’s rowing club Okeanos won the prestigious Thames Challenge Cup at the Henley Royal Regatta in England.



## VU Pride

Together with Amsterdam University of Applied Sciences, the University of Amsterdam, and Inholland University of Applied Sciences, VU Amsterdam took part in Pride Amsterdam. 'Higher Education' was the motto for the universities’ boat in the boat parade in August, and the four universities also did the Pride Walk together in June.



# VU Amsterdam develops SDG dashboard

In 2019, the University Library developed a draft model for the monitoring of the societal impact of research conducted at VU Amsterdam.

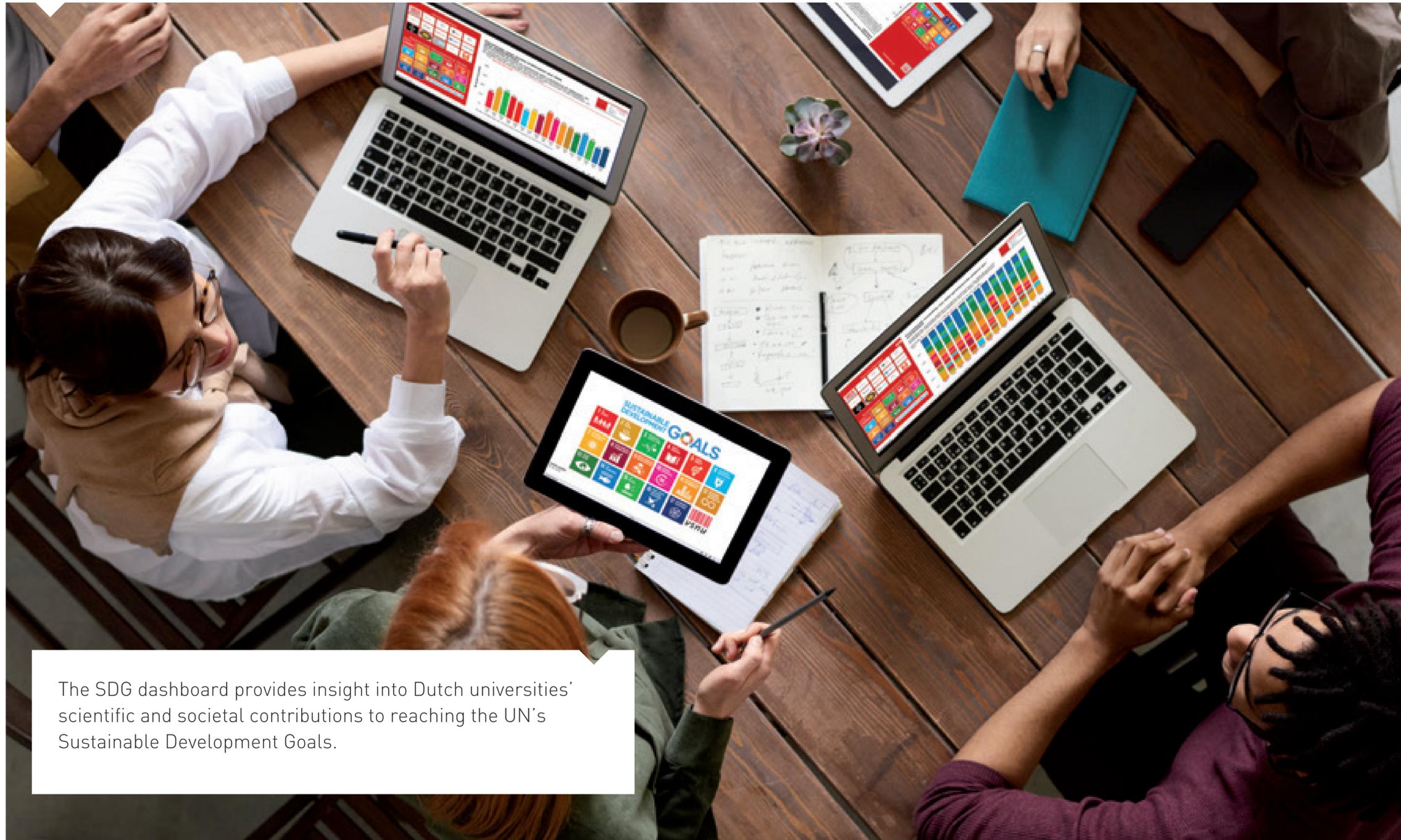
A similar dashboard was also made for the Association of Universities in the Netherlands (VSNU). It ultimately resulted in a [Dutch dashboard](#) for the Sustainable Development Goals (SDGs), i.e. the most important global societal goals for 2030 that were adopted by the UN in 2015. Using a biometric tool developed by partners from the Aurora university collaboration network, the dashboard captures the university's Research Intelligence Team's analyses of scientific publications published over the 2010-2018 period.

## In non-scientific circles

Research was also done into how to monitor the societal impact of publications that, although not published in scientific journals, are of a scientific nature.

In 2019, 855 VU Amsterdam and VU University Medical Centre publications were identified that contribute to the SDGs. The analysis has a clear focus on three SDGs, namely the following:

1. Zero Hunger (SDG-2)
2. Climate Action (SDG-13)
3. Justice and Strong Institutions (SDG-16)



The SDG dashboard provides insight into Dutch universities' scientific and societal contributions to reaching the UN's Sustainable Development Goals.



# Open Science

The academic world is switching to a more transparent way of doing and sharing science (Open Science). This transition covers all aspects of the academic process, ranging from research planning, data collection, analysis and publication to evaluation.

Greater transparency in science will lead to wider availability of scientific knowledge to other researchers and the general public, which will, in turn, create new opportunities for collaboration. Aside from that, it will provide greater insight into how research results came about, making the process of finding and correcting errors in analyses and publications a lot faster.

An important cornerstone of Open Science is that academic publications are to be made publicly accessible (Open Access). At present, many scientific publications are still kept behind

publishing companies' paywalls, which limits the spread of knowledge to those who can afford and are willing to pay for it, excluding large groups of people across the world from accessing publications. However, much of the research presented in these publications was publicly funded, so why should the public be denied access to the results of the research?

Openly sharing research results worldwide paves the way for faster and more accurate collaboration between researchers and companies in their pursuit to achieve societal goals.

VU Amsterdam is working hard to make all its publications publicly accessible. Our University Library supports scientists with:

- Help in [Open Access](#) publication;
- Research Data Services;
- [VU Research Portal](#).



**VU Library Live** is a freely accessible podcast where we discuss new developments in academia with researchers, lecturers and subject experts at VU Amsterdam.

# Strikingly VU



## Hello, my name is Alice!

In partnership with Deloitte, VU Amsterdam continues to make progress in the development of the care robot called Alice, who can be deployed to, for example, combat elderly loneliness and social isolation. Alice can have a chat with her user, giving him or her the feeling that there is someone looking after him or her, while also offering technological capabilities that allow the user to do things such as send WhatsApp messages or order groceries. Social robotics is the subject of various fundamental and applied research projects at VU Amsterdam, and students can even choose to do a cross-disciplinary Master's specialisation in **'Socially Aware Robotics'**. Researchers from different disciplines, such as from Media Psychology at Communication Science and AI at Computer Science work together for this specialisation.

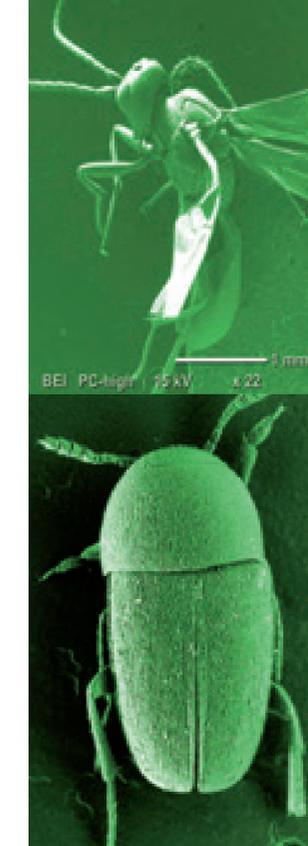
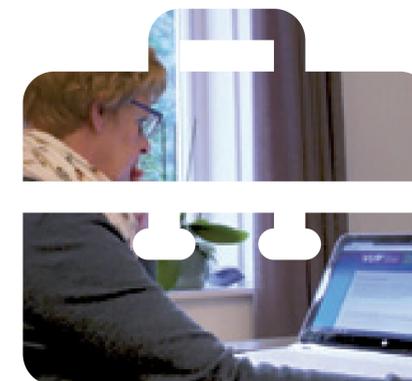


## Students gain practical skills in Skillslab

In February, the Skillslab opened its doors, with classrooms fitted out as four fully-fledged hospital rooms. Students of Amstel Academy and VU University Medical Centre Academy can come here to hone their practical skills by practising things such as inserting an IV, intubation, suturing, applying a cast and resuscitation.

## Faculty of Social Sciences researcher lands prize for fight against elderly loneliness

In March, Tamara Bouwman, a researcher at the Faculty of Social Sciences, won the €50,000 second prize in the Medical Inspirator Awards for her project entitled 'The Online Friendship Course.' Tamara will be using the funds to further develop the [course](#) and partner with Stichting de Gouden Dagen to make it accessible to elderly people who are struggling with loneliness.



## VU and Naturalis biologists discover new insect species in an Amsterdam park

On a joint expedition, amateur researchers and professional biologists of VU Amsterdam and the Naturalis Biodiversity Centre discovered not one, but two new insect species - a beetle and an ichneumon wasp. What makes this discovery so special is that it happened in a park in the heart of Amsterdam, Vondelpark. The finds were analysed in August and presented at VU Amsterdam's lab.



## VU professor Scherder and Dutch eighties pop sensation give lecture at Lowlands Festival

The songs of Doe Maar, the eighties band headed up by singer and bass player Henny Vrienten, have a real knack of sticking in people's heads. In August, VU Professor Erik Scherder teamed up with former Doe Maar frontman Henny Vrienten, who composed most of Doe Maar's songs, to give a lecture at the Lowlands Festival on the influence of music on the human brain. Mirror neurons, nerve cells that are activated by musical imagery, turned out to play a key role in making songs stick.

## Strikingly VU

### Queen Maxima and VU robot Leolani have a chat

On a working visit to the Royal Netherlands Academy of Arts and Sciences in October, Queen Maxima stopped for a chat with Leolani, a robot developed at VU Amsterdam. Leolani has been programmed to interpret human speech and is able to engage in conversation. Leolani and Queen Maxima talked about things such as international knowledge sharing and collaboration.



### VU researcher prevents over 1,800 suicides in China

Zhisheng Huang, an Artificial Intelligence researcher at VU Amsterdam, has developed a suicide scanner that runs on artificial intelligence. The scanner scours the internet for messages that point to suicidal behaviour in China, which has a high suicide rate. Messages found are subsequently classified on an urgency scale of one to ten. As soon as a high-urgency message is detected, family, friends or the police are contacted, who will then try to contact the person in question. For lower-urgency messages, a volunteer will cautiously try to get in touch with the person who posted the message.

Zhisheng Huang's suicide scanner has meanwhile already prevent as many as 1,800 suicides.

### VU Amsterdam one of the initiators behind Aurora Alliance

In 2019, VU Amsterdam and eight other European universities continued work on the [Aurora Alliance](#), a network of universities that combines education with societal impact. These universities share a mission to make society better and find solutions to the major issues of our world, whereby diversity and inclusiveness are the central focus points. The Aurora Alliance aims to equip students with the skills they need to overcome future social challenges.



### Children introduced to VU Amsterdam during Science Weekend

In October, VU Amsterdam took part in the Science Weekend initiative, which is intended to introduce children aged between 8 and 12 to the world of science and technology. The weekend was opened by brain professor Erik Scherder and the young visitors were treated to a VIP tour with all kinds of fun and informative activities – such as befriending a robot, discovering a sunspot, or experiencing what it is like to do exercise at -20°C.



# Cycling at 122.12 km/h

Delft University of Technology and VU Amsterdam students break world speed cycling record.

On 10 September, the Human Power Team of VU Amsterdam and Delft University of Technology students broke the female world speed cycling record at the World Human Powered Speed Challenge. In the Nevada desert in the US, athlete Rosa Bas set a new record of 122.12km/h, breaking the old record of 121.8km/h.

## Faster than a car on human power alone

“We had worked towards this for a whole year, and we pulled it off,” says Rosa. “It is so special to cycle that fast. I was going faster than the speed cars are normally allowed to drive on this road.”

The record was broken on the Velox 9 aerodynamic recumbent bicycle that the team had built itself. Bart van de Krol, the team’s Aerodynamics Engineer and aerospace engineering student, explains: “At high speeds, drag is our biggest enemy, which is why the shape of the aerodynamic

body around our bicycle plays such a key role in achieving the top speed. We designed this shape to create a close fit around our athletes’ bodies to make the bike as streamlined and small as possible.

## In pursuit of records

The Human Power Team is a collaboration between 16 students of Delft University of Technology and VU Amsterdam who put their studies on hold for a year to work exclusively on this project. Every year, the team takes part in the World Human Powered Speed Challenge, driven by an ambition to set new records!



**Human Power Team** – Britt Krabbenborg, Marije Markesteijn, Tomas Gast, Bart van de Krol, Charlotte Iványi, Flip Colin, Rick Wasserman, Margot Honkoop, Mischa de Haan, Leanne van Bentem, Cécile Volten, Sebastian Hartgring, Linda Vermeulen, Jan-Douwe Seigers, Emma van Dijk, Martijn van der Wal, Rosa Bas, Jennifer Breet



# A look ahead to 2020

## Coronavirus (COVID-19)

At the time of writing this digital magazine, global society was in the grips of a crisis caused by the coronavirus outbreak. This crisis first and foremost comes with major consequences and risks for public health and our healthcare system. For VU Amsterdam, this crisis has impacted enormously on how we perform our core activities of teaching, research and knowledge transfer, which has greatly affected the entire VU community.

Although we have acted with decisiveness and resilience to transform our activities to working and studying remotely, we do expect some students to fall behind in their studies. Our research activities are continued where possible and delayed where necessary. While the use of alternative teaching modalities and switching to different ways of working involved extra expenditure, there were cost savings and adjustments elsewhere.

## Studying together

Studying at VU Amsterdam is not only about getting an education. It is also about meeting people on campus and studying for exams together at the University Library.

Despite the coronavirus crisis turning everything upside down, there is one thing we know for sure: students can continue to expect a high-quality education.

## Hybrid learning at VU Amsterdam

We have adopted a hybrid learning model, with both online classes and classes taught on campus where possible and permitted. When lectures are held on campus again, but students are not yet able to come to VU Amsterdam, we will offer online alternatives. For classes that can only be held in a specific location, such as practical classes or lab sessions, online alternatives are unfortunately not available.

[Check out the latest news →](#)



### Coronavirus Research Fund

Given this unprecedented emergency situation, the fund-raising foundations of Amsterdam University Medical Centre, i.e. the VUmc Fund and the AMC Foundation, set up the 'Amsterdam University Medical Centre Coronavirus Research Fund.' With support from VU Amsterdam, the University of Amsterdam, the Amsterdam University Fund, and the VU Society, Amsterdam's academic world has come together in the fight against coronavirus. The fund is intended to support researchers at Amsterdam University Medical Centre in conducting new and urgent scientific research into COVID-19 and to provide funds for medical aids at the Amsterdam University Medical Centre.

### Diversity matters

VU Amsterdam has a rich tradition of having a strong and critical diversity policy. We strive for a just world and work to ensure equal opportunities and rights for all, whereby race, skin colour and religion do not make any difference to how you are perceived and treated. Also internally at our own organisation, we join forces with lecturers and students to eradicate racism and discrimination, which is a fight that has returned to the public eye on the back of recent events. VU Amsterdam has a Chief Diversity Officer to lead our anti-racism and anti-discrimination efforts, which include the following:

- We organise 'courageous conversations' to engage in dialogue on diversity, addressing uncomfortable questions with sometimes painful answers. At 3D, our (virtual) centre for debate, dialogue and diversity, we organise further courageous conversations for students and staff in a safe and brave space. [Follow here](#) →
- VU Amsterdam looks into its past, building on projects about slavery heritage, discrimination, racism and apartheid. We also foster debate on how our relatively young university, too, is tied to the Netherlands' colonial history.
- VU Amsterdam analyses the hidden inequalities in its structures. We look at how to end the inequality of opportunity in academic careers to make our workforce a better reflection of our multicultural student population. We explore ways for us to build a community where everyone can feel involved. We empower students and (young) staff to shape their multi-coloured identities with pride and be role models to new generations.
- VU Amsterdam will be subjecting its curricula, role patterns and international relations to even closer scrutiny, and will fight the inequality that is often still found in these areas.

### Student societies

Depending on their interests, students at VU Amsterdam have various options when it comes to picking a society to join. There are societies with an academic focus that are tied to a specific faculty or course, known as study societies, and also student societies that welcome students from different faculties and even different institutions of higher education in Amsterdam. There are also university and national student unions and other interest groups for students.

#### Go to

- [Faculty societies](#)
- [Non-faculty societies](#)
- [Student council](#)
- [Interest groups](#)
- [University-recognised societies](#)



VUmc Year Representative Council



Vivavu Board



EOS Faculty Society Board



FSR, Faculty of Behavioural and Movement Sciences



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